ELSEVIER

www.elsevier.nl/locate/jorganchem

Journal of Organometallic Chemistry 596 (2000) 257–258

Journal of Organometallic Chemistry

Author Index of Volume 596

Abernethy, C.D., 3
Adams, R.D., 102, 115
Akhter, Z., 204
Alan H., 3
Albrecht, M., 84
Alvarez, J.C., 152
Atwood, D.A., 109

Bacsa, J., 159
Bailey, R.D., 90
Barckholtz, T.A., 212
Birri, A., 46
Boeyens, J.C.A., 159
Bursten, B.E., 212

Calderazzo, F., 144
Callahan, R.P., 6
Carlson, T.F., 237
Carpenter, J.P., 252
Cavigiolio, G., 242
Chakravarty, A.R., 232
Chang, F.-C., 226
Chantler, J., 27
Chen, J.-D., 226
Chen, L., 70
Cheung, S.-H., 36
Cotton, F.A., 130
Cowley, 3

Dell'Amico, D.B., 144
Dikarev, E.V., 130

Eagle, C.T., 90
Edwards, A.J., 204
Eglin, J.L., 136
Estevan, F., 248

Fackler, J.P., Jr., 1, 237
Fanwick, P.E., 27
Farrar, D.G., 90
Ferrence, G.M., 95
Fiaschi, R., 242
Fillebeen, T., 22
Floriani, C., 77

Galán-Mascarós, J.R., 248
Gallagher, J.F., 204
García-Bernabé, A., 248
Geetha, K., 232
Gimeno, M.C., 10
Goodgame, D.M.L., 16
Goodgame, M., 16
Grachvogel, D.A., 16
Guzei, I., 70

Harris, C.B., 183
Hascall, T., 22
Herdtweck, E., 177
Hesschenbrouck, J., 77
Holder, G.N., 90
Hong, B., 53
Hussain, I., 16

Ichikawa, K., 121
Ishii, T., 121
Ishioka, T., 121

Jaouen, G., 242
Johnson, B.F.G., 221
Jones, P.G., 10
Jones, R.A., 3

Kaim, W., 84
Kemp, R.A., 70
Keng, T.-C., 226
Kisko, J.L., 22
Kitagawa, S., 121
Klunduk, M.C., 221
Kondo, M., 121
Kort, D.A., 27
Kotz, K.T., 183
Kovacs, I., 193
Kühn, F.E., 177
Kwon, O.-S., 102

Labella, L., 144
Lagow, R.J., 6
Laguna, A., 10
Lahuerta, P., 248
Laios, I., 242
Leclercq, G., 242
Lee, S.-M., 36
Leung, S.-Y., 36
Lewis, J., 204
Liu, S., 109
Lukehart, C.M., 252

Marchetti, F., 144
Martin, C.M., 221
Matsuzaka, H., 121
McDonald, R., 95
Morales, D., 64
Morissette, M., 95
Munoz-Hernandez, M.-A., 109
Murfee, H.J., 53

Napolitano, E., 242
Okubo, T., 121

Osella, D., 242

Parish, R.V., 165
Parkin, G., 22
Payne, C.K., 183
Pearson, C., 193
Pennington, W.T., 90
Perrin, J.L., 102, 115
Petrukhina, M.A., 130
Pleune, B., 64
Poli, R., 64
Pritchard, R.G., 165

Queisser, J.A., 115

Raithby, P.R., 204
Rath, R.K., 232
Re, N., 77
Ren, T., 152
Rheingold, A.L., 70
Richard, P., 64
Rogers, R.D., 115

Sanaú, M., 248
Sankar, G., 221
Sarroca, C., 10
Sato, H., 121
Scheiring, T., 84
Scopelliti, R., 77
Shaver, A., 193
Shields, G.P., 204
Sixt, T., 84
Smith, L.T., 136
Snee, P.T., 183
Solari, E., 77
Staples, R.J., 136
Steed, J.W., 46
Stock, S.R., 252
Suen, M.-C., 226

Takats, J., 95
Teate, S.J., 221
Thomas, J.M., 221
Tocher, D.A., 46

Ubeda, M.A., 248

Valavi, S.G., 232
Valente, E.J., 136
van der Veer, W.E., 53
Vessières, A., 242
Vincenti, M., 242

Walton, R.A., 27
Wang, J.-C., 226

PII: S0022-328X(99)00750-0

Williams, D.J., 16
Wong, W.-Y., 36
Wright, J.P., 165

Xu, D., 53
Xue, W.-M., 177

Yamashita, M., 121
Yang, H., 183
Yang, P.-Y., 226
Youngstrom, C.R., 6

Zhang, G., 177
Zou, G., 152
Zubkowski, J.D., 136

ELSEVIER

www.elsevier.nl/locate/jorganchem

Journal of Organometallic Chemistry 596 (2000) 259–263

Journal of Organometallic Chemistry

Subject Index of Volume 596

Addition
Preparation of ruthenium silanethiolato complexes and their reactions with sulfur dioxide; possible models for the activation of SO_2 in the homogeneously catalyzed Claus reaction, 193
Alkyl
The synthesis and structural characterization of phenyl tris(3-*t*-butylpyrazolyl)borato alkyl complexes of magnesium and zinc, [PhTp$^{Bu^t}$]MgR (R = Me, Et) and [PhTp$^{Bu^t}$]ZnMe, 22
Alkyne
Synthesis, structure, and reactivities of the Ru–Co heterobimetallic complex. Molecular structures of $Cp^*Ru(CO)_2(\mu_2\text{-}CO)Co(CO)_3$, $Cp^*Ru(\mu_2\text{-}CO)_2(\mu_2\text{-}dppm)Co(CO)_2$, $Cp^*Ru(CNBu^t)(CO)(\mu_2\text{-}CO)Co(CO)_3$, and $Cp^*(CO)Ru\{\eta^2\text{:}\eta^4\text{-}\mu_2\text{-}C(Tol)CHC(Tol)CH\}Co(CO)_2$ ($Cp^* = \eta^5\text{-}C_5Me_5$, dppm = $Ph_2PCH_2PPh_2$, Tol = C_6H_4Me-4), 121
Alkynyl
Ru-σ-alkynyl compounds of tetraanilinopyridinato-dirutheniu-m(II,III) core: synthesis and structural characterization, 152
2-Anilinopyridinate
Ru-σ-alkynyl compounds of tetraanilinopyridinato-dirutheniu-m(II,III) core: synthesis and structural characterization, 152
Arene
Synthesis, structure, and reactivity of osmium π-thiophene complexes, 46
Arene-ruthenium
Synthesis, structure and properties of cycloruthenated complexes: crystal structure of mono-chloro-(η^6-*p*-cymene)-{(phenylazo)phenyl}ruthenium(II), 232
Aromatic rings
Structural and electronic properties of (2,2-*trans*)-dirhodium(II) tetrakis(*N*-phenylacetamidate), 90
Aromatic π–π stacking interaction
Synthesis and X-ray structures of some Group 6 metal carbonyl bis(2-pyridyl)formamidine complexes, 226
Axial ligands
Synthesis and characterization of [*trans*-di(μ-acetato)(μ-bis-(diphenylphosphino)methylamine)bis(pyridine)dimolybdenum(II)]bis(tetrafluoroborate) and derivatives, 177
Azobenzene
Synthesis, structure and properties of cycloruthenated complexes: crystal structure of mono-chloro-(η^6-*p*-cymene)-{(phenylazo)phenyl}ruthenium(II), 232

π-Backbonding
Structural and electronic properties of (2,2-*trans*)-dirhodium(II) tetrakis(*N*-phenylacetamidate), 90
Bimetallic
Bimetallic and cationic aluminum with N_3O_2 chelate ligands, 109
Bis(diphenylthiophosphoryl)ferrocene
1,1′-Bis(diphenylthiophosphoryl)ferrocene complexes of gold(I) and gold(III), 10
Bis(2-pyridyl)formamidine complexes
Synthesis and X-ray structures of some Group 6 metal carbonyl bis(2-pyridyl)formamidine complexes, 226
Bond energies
Density functional calculations of dinuclear organometallic carbonyl complexes. Part I: metal–metal and metal–CO bond energies, 212
Bond order
Molecular modeling of dimetal systems: Part 4. Dirhenium bonds, 159

Carbamato complexes
Triphenylphosphine-substituted *N,N*-di-*iso*-propylcarbamate of ruthenium(II) and its reactions with carbon monoxide, 144
Carbene complex
Reaction of nickelocene with 1,3-dimesitylimidazolium chloride, 3
Carbonyl
Studies of tetrakis(trifluoroacetate) dirhodium: Part 4. Solventless synthesis of $Rh_2(O_2CCF_3)_2(CO)_4$ combined with $Rh_2(O_2CCF_3)_4$, a compound with infinite chains of rhodium atoms, 130
Carbonylation
Triphenylphosphine-substituted *N,N*-di-*iso*-propylcarbamate of ruthenium(II) and its reactions with carbon monoxide, 144
Carbonyl cluster
Systematic formation of mixed-metal high-nuclearity clusters: the synthesis and characterisation of $[Os_6(CO)_{17}(Au_2dppm)]$ and $[Os_6(CO)_{17}(Au_2dppm)\{Ru(\eta^5\text{-}C_5H_5)\}_2]$ (dppm = $Ph_2PCH_2PPh_2$), 204
Carbonyl complexes
Reactions of the dirhenium(II) complexes $Re_2X_4(\mu\text{-dppm})_2$ (X = Cl, Br; dppm = $Ph_2PCH_2PPh_2$) with isocyanides: Part XX. Oxidation of the complexes $Re_2X_4(\mu\text{-dppm})_2(L)$ (X = Cl or Br; dppm = $Ph_2PCH_2PPh_2$; L = *t*-BuNC, XylNC or CO) to the edge-sharing bioctahedral dirhenium(III) cations $[Re_2(\mu\text{-}X)_2(\mu\text{-dppm})_2X_3(L)]^+$, 27
Catalysis
Preparation of ruthenium silanethiolato complexes and their reactions with sulfur dioxide; possible models for the activation of SO_2 in the homogeneously catalyzed Claus reaction, 193
Catalyst
The preparation, molecular structure and catalytic relevance of $Ti(OSiPh_3)_4$ and $Ti(OGePh_3)_4$, 221
Cationic
Bimetallic and cationic aluminum with N_3O_2 chelate ligands, 109
Chelate ligands
Bimetallic and cationic aluminum with N_3O_2 chelate ligands, 109
Chiral macrocycle
Synthesis and structural characterization of chiral thiacrowns: the crystal and molecular structure of (*R,R,R*)-2,6,10-trimethyl-1,5,9-trithiacyclododecane, 115
Chlorine
Reaction of nickelocene with 1,3-dimesitylimidazolium chloride, 3
Claus process
Preparation of ruthenium silanethiolato complexes and their reactions with sulfur dioxide; possible models for the activation of SO_2 in the homogeneously catalyzed Claus reaction, 193

PII: S0022-328X(99)00751-2

Clusters
Synthesis, characterization and crystal structures of some tungsten and triosmium carbonyl complexes with monopyridyl and dipyridyl azo ligands, 36
Cobalt
Synthesis, structure, and reactivities of the Ru–Co heterobimetallic complex. Molecular structures of $Cp^*Ru(CO)_2(\mu_2\text{-}CO)Co(CO)_3$, $Cp^*Ru(\mu_2\text{-}CO)_2(\mu_2\text{-}dppm)Co(CO)_2$, $Cp^*Ru(CNBu^t)(CO)(\mu_2\text{-}CO)Co(CO)_3$, and $Cp^*(CO)Ru\{\eta^2{:}\eta^4\text{-}\mu_2\text{-}C(Tol)CHC(Tol)CH\}Co(CO)_2$ ($Cp^* = \eta^5\text{-}C_5Me_5$, dppm = $Ph_2PCH_2PPh_2$, Tol = C_6H_4Me-4), 121
Cobalt carbonyl cluster
The first organometallic derivative of 11β-ethynylestradiol, a potential high-affinity marker for the estrogen receptor, 242
Coupling reaction
Synthesis and structural characterization of Group 14 complexes containing two {9-[2-(dimethylamino)ethyl]fluorenyl-} ligands and a unique coupling product, 70
Crystal structure
Chain polymeric complexes of some first-series transition-metal ions with *N,N,N′,N′*-tetra-acetyl-1,4-diaminobutane, 16
Reactions of the dirhenium(II) complexes $Re_2X_4(\mu\text{-dppm})_2$ (X = Cl, Br; dppm = $Ph_2PCH_2PPh_2$) with isocyanides: Part XX. Oxidation of the complexes $Re_2X_4(\mu\text{-dppm})_2(L)$ (X = Cl or Br; dppm = $Ph_2PCH_2PPh_2$; L = *t*-BuNC, XylNC or CO) to the edge-sharing bioctahedral dirhenium(III) cations $[Re_2(\mu\text{-}X)_2(\mu\text{-dppm})_2X_3(L)]^+$, 27
Studies of tetrakis(trifluoroacetate) dirhodium: Part 4. Solventless synthesis of $Rh_2(O_2CCF_3)_2(CO)_4$ combined with $Rh_2(O_2CCF_3)_4$, a compound with infinite chains of rhodium atoms, 130
Synthesis, characterization and crystal structures of some tungsten and triosmium carbonyl complexes with monopyridyl and dipyridyl azo ligands, 36
Synthesis, structure and properties of cycloruthenated complexes: crystal structure of mono-chloro-(η^6-*p*-cymene)-{(phenylazo)phenyl}ruthenium(II), 232
Cyclometallation
Photo-assisted formation of a chelating diphos ligand from PPh_3 and a cyclometallated $[P(C_6H_4)(C_6H_5)_2]^-$ ligand. Crystal structure of $Pd\{\eta^2\text{-}o\text{-}[P(C_6H_5)_2]_2(C_6H_4)\}Br_2$, 248
Cyclopentadienyl
Mixed pyrazolylborate/cyclopentadienyl derivatives of divalent lanthanides: synthesis and structure of $(Tp'^{Bu,Me})Yb(C_5H_4R)$ (R = H, $SiMe_3$), 95
Reaction of nickelocene with 1,3-dimesitylimidazolium chloride, 3

Density functional theory
Density functional calculations of dinuclear organometallic carbonyl complexes. Part I: metal–metal and metal–CO bond energies, 212
Dimolybdenum(II)
Synthesis and characterization of [*trans*-di(μ-acetato)(μ-bis(diphenylphosphino)methylamine)bis(pyridine)dimolybdenum(II)]bis(tetrafluoroborate) and derivatives, 177
Dinuclear metallacyclopentadiene
Synthesis, structure, and reactivities of the Ru–Co heterobimetallic complex. Molecular structures of $Cp^*Ru(CO)_2(\mu_2\text{-}CO)Co(CO)_3$, $Cp^*Ru(\mu_2\text{-}CO)_2(\mu_2\text{-}dppm)Co(CO)_2$, $Cp^*Ru(CNBu^t)(CO)(\mu_2\text{-}CO)Co(CO)_3$, and $Cp^*(CO)Ru\{\eta^2{:}\eta^4\text{-}\mu_2\text{-}C(Tol)CHC(Tol)CH\}Co(CO)_2$ ($Cp^* = \eta^5\text{-}C_5Me_5$, dppm = $Ph_2PCH_2PPh_2$, Tol = C_6H_4Me-4), 121
Dirhenium bonds
Molecular modeling of dimetal systems: Part 4. Dirhenium bonds, 159
Dirhenium(II) complexes
Reactions of the dirhenium(II) complexes $Re_2X_4(\mu\text{-dppm})_2$ (X = Cl, Br; dppm = $Ph_2PCH_2PPh_2$) with isocyanides: Part XX. Oxidation of the complexes $Re_2X_4(\mu\text{-dppm})_2(L)$ (X = Cl or Br; dppm = $Ph_2PCH_2PPh_2$; L = *t*-BuNC, XylNC or CO) to the edge-sharing bioctahedral dirhenium(III) cations $[Re_2(\mu\text{-}X)_2(\mu\text{-dppm})_2X_3(L)]^+$, 27
Dirhenium(III) complexes
Reactions of the dirhenium(II) complexes $Re_2X_4(\mu\text{-dppm})_2$ (X = Cl, Br; dppm = $Ph_2PCH_2PPh_2$) with isocyanides: Part XX. Oxidation of the complexes $Re_2X_4(\mu\text{-dppm})_2(L)$ (X = Cl or Br; dppm = $Ph_2PCH_2PPh_2$; L = *t*-BuNC, XylNC or CO) to the edge-sharing bioctahedral dirhenium(III) cations $[Re_2(\mu\text{-}X)_2(\mu\text{-dppm})_2X_3(L)]^+$, 27
Diruthenium compounds
Ru-σ-alkynyl compounds of tetraanilinopyridinato-diruthenium(II,III) core: synthesis and structural characterization, 152
Dissociative mechanism
Femtosecond infrared studies of ligand rearrangement reactions: silyl hydride products from Group 6 carbonyls, 183
Ditungsten
Synthesis, characterization, and X-ray crystallography of a series of ditungsten complexes with bis(diphenylphosphino)amine, 136
Dynamics
Femtosecond infrared studies of ligand rearrangement reactions: silyl hydride products from Group 6 carbonyls, 183

Electrochemistry
Ru-σ-alkynyl compounds of tetraanilinopyridinato-diruthenium(II,III) core: synthesis and structural characterization, 152
Structures and properties of complexes $[MCl(C_5Me_5)(N \wedge S)](PF_6)$, M = Rh, Ir, with N ^ S = 1-methyl-2-(alkylthiomethyl)-1*H*-benzimidazole ligands, 84
Enyne
Synthesis, structure, and reactivities of the Ru–Co heterobimetallic complex. Molecular structures of $Cp^*Ru(CO)_2(\mu_2\text{-}CO)Co(CO)_3$, $Cp^*Ru(\mu_2\text{-}CO)_2(\mu_2\text{-}dppm)Co(CO)_2$, $Cp^*Ru(CNBu^t)(CO)(\mu_2\text{-}CO)Co(CO)_3$, and $Cp^*(CO)Ru\{\eta^2{:}\eta^4\text{-}\mu_2\text{-}C(Tol)CHC(Tol)CH\}Co(CO)_2$ ($Cp^* = \eta^5\text{-}C_5Me_5$, dppm = $Ph_2PCH_2PPh_2$, Tol = C_6H_4Me-4), 121
Epoxidation reaction
The preparation, molecular structure and catalytic relevance of $Ti(OSiPh_3)_4$ and $Ti(OGePh_3)_4$, 221
EPR
Chain polymeric complexes of some first-series transition-metal ions with *N,N,N′,N′*-tetra-acetyl-1,4-diaminobutane, 16
Estradiol
The first organometallic derivative of 11β-ethynylestradiol, a potential high-affinity marker for the estrogen receptor, 242
Estrogen receptor
The first organometallic derivative of 11β-ethynylestradiol, a potential high-affinity marker for the estrogen receptor, 242

Ferrocene
1,1′-Bis(diphenylthiophosphoryl)ferrocene complexes of gold(I) and gold(III), 10
Fluorination
Synthesis of perfluoropropyl and perfluorobutyl germanium by direct fluorination: a potential general synthesis for perfluorinated metal alkyls, 6

Germanium
Synthesis and structural characterization of Group 14 complexes containing two {9-[2-(dimethylamino)ethyl]fluorenyl-} ligands and a unique coupling product, 70

Gold
1,1′-Bis(diphenylthiophosphoryl)ferrocene complexes of gold(I) and gold(III), 10
Systematic formation of mixed-metal high-nuclearity clusters: the synthesis and characterisation of $[Os_6(CO)_{17}(Au_2dppm)]$ and $[Os_6(CO)_{17}(Au_2dppm)\{Ru(\eta^5\text{-}C_5H_5)\}_2]$ (dppm = $Ph_2PCH_2PPh_2$), 204
Gold–gold vibration
Raman spectroscopic investigations of dinuclear gold ylide complexes; further relationships of Au–Au bond lengths versus Au–Au stretching frequencies, 237
Gold(II)
Raman spectroscopic investigations of dinuclear gold ylide complexes; further relationships of Au–Au bond lengths versus Au–Au stretching frequencies, 237
Gold(III)
Mercury(II) and gold(III) derivatives of 2-phenyl pyridines and 2-phenyl-4-(methylcarboxylato)quinoline, 165
Group 6
Femtosecond infrared studies of ligand rearrangement reactions: silyl hydride products from Group 6 carbonyls, 183

Half-sandwich complexes
Preparation and structure of the 17-electron $(\eta^5\text{-}C_5R_5)Mo(OH)_2(dppe)$ (R = Me, Et) organometallic compounds containing two *gem*-terminal hydroxide ligands, 64
Harmonic force constants
Molecular modeling of dimetal systems: Part 4. Dirhenium bonds, 159
Heterobimetallic complex
Synthesis, structure, and reactivities of the Ru–Co heterobimetallic complex. Molecular structures of $Cp^*Ru(CO)_2(\mu_2\text{-}CO)Co(CO)_3$, $Cp^*Ru(\mu_2\text{-}CO)_2(\mu_2\text{-}dppm)Co(CO)_2$, $Cp^*Ru(CNBu^t)(CO)(\mu_2\text{-}CO)Co(CO)_3$, and $Cp^*(CO)Ru\{\eta^2{:}\eta^4\text{-}\mu_2\text{-}C(Tol)CHC(Tol)CH\}Co(CO)_2$ ($Cp^* = \eta^5\text{-}C_5Me_5$, dppm = $Ph_2PCH_2PPh_2$, Tol = C_6H_4Me-4), 121
Heteroleptic complexes
Mixed pyrazolylborate/cyclopentadienyl derivatives of divalent lanthanides: synthesis and structure of $(Tp^{tBu,Me})Yb(C_5H_4R)$ (R = H, $SiMe_3$), 95
Host–guest
Photoluminescent macrocyclic Pd(II) and Pt(II) dimeric complexes with $Ph_2P\text{–}C{\equiv}C\text{–}PPh_2$ spacer, 53
Hydride complexes
Preparation and structure of the 17-electron $(\eta^5\text{-}C_5R_5)Mo(OH)_2(dppe)$ (R = Me, Et) organometallic compounds containing two *gem*-terminal hydroxide ligands, 64
Hydrogen bonding
Synthesis and X-ray structures of some Group 6 metal carbonyl bis(2-pyridyl)formamidine complexes, 226
Hydrolysis
Synthesis, structure, and reactivity of osmium π-thiophene complexes, 46
Hydrotris(pyrazolyl)borate
Mixed pyrazolylborate/cyclopentadienyl derivatives of divalent lanthanides: synthesis and structure of $(Tp^{tBu,Me})Yb(C_5H_4R)$ (R = H, $SiMe_3$), 95
Hydroxide complexes
Preparation and structure of the 17-electron $(\eta^5\text{-}C_5R_5)Mo(OH)_2(dppe)$ (R = Me, Et) organometallic compounds containing two *gem*-terminal hydroxide ligands, 64

Imidazolium
Reaction of nickelocene with 1,3-dimesitylimidazolium chloride, 3
Inorganic macrocycles
Photoluminescent macrocyclic Pd(II) and Pt(II) dimeric complexes with $Ph_2P\text{–}C{\equiv}C\text{–}PPh_2$ spacer, 53
Insertion
Preparation of ruthenium silanethiolato complexes and their reactions with sulfur dioxide; possible models for the activation of SO_2 in the homogeneously catalyzed Claus reaction, 193
Ionic coupling
Systematic formation of mixed-metal high-nuclearity clusters: the synthesis and characterisation of $[Os_6(CO)_{17}(Au_2dppm)]$ and $[Os_6(CO)_{17}(Au_2dppm)\{Ru(\eta^5\text{-}C_5H_5)\}_2]$ (dppm = $Ph_2PCH_2PPh_2$), 204
Iridium
Structures and properties of complexes $[MCl(C_5Me_5)(N\,\hat{}\,S)](PF_6)$, M = Rh, Ir, with N ^ S = 1-methyl-2-(alkylthiomethyl)-1*H*-benzimidazole ligands, 84
IR spectroscopy
Femtosecond infrared studies of ligand rearrangement reactions: silyl hydride products from Group 6 carbonyls, 183
Isocyanide complexes
Reactions of the dirhenium(II) complexes $Re_2X_4(\mu\text{-}dppm)_2$ (X = Cl, Br; dppm = $Ph_2PCH_2PPh_2$) with isocyanides: Part XX. Oxidation of the complexes $Re_2X_4(\mu\text{-}dppm)_2(L)$ (X = Cl or Br; dppm = $Ph_2PCH_2PPh_2$; L = *t*-BuNC, XylNC or CO) to the edge-sharing bioctahedral dirhenium(III) cations $[Re_2(\mu\text{-}X)_2(\mu\text{-}dppm)_2X_3(L)]^+$, 27

Lanthanides
Mixed pyrazolylborate/cyclopentadienyl derivatives of divalent lanthanides: synthesis and structure of $(Tp^{tBu,Me})Yb(C_5H_4R)$ (R = H, $SiMe_3$), 95

Macrocyclization
Synthesis and structural characterization of chiral thiacrowns: the crystal and molecular structure of (*R,R,R*)-2,6,10-trimethyl-1,5,9-trithiacyclododecane, 115
Magnesium
The synthesis and structural characterization of phenyl tris(3-*t*-butylpyrazolyl)borato alkyl complexes of magnesium and zinc, $[PhTp^{Bu^t}]MgR$ (R = Me, Et) and $[PhTp^{Bu^t}]ZnMe$, 22
Main group compounds
Synthesis and structural characterization of Group 14 complexes containing two {9-[2-(dimethylamino)ethyl]fluorenyl-} ligands and a unique coupling product, 70
Mercury(II)
Mercury(II) and gold(III) derivatives of 2-phenyl pyridines and 2-phenyl-4-(methylcarboxylato)quinoline, 165
Metal carbonyl complexes
Synthesis and X-ray structures of some Group 6 metal carbonyl bis(2-pyridyl)formamidine complexes, 226
Metal carbonyls
Density functional calculations of dinuclear organometallic carbonyl complexes. Part I: metal–metal and metal–CO bond energies, 212
Metal–metal bonds
Molecular modeling of dimetal systems: Part 4. Dirhenium bonds, 159
Synthesis and characterization of [*trans*-di(μ-acetato)(μ-bis(diphenylphosphino)methylamine)bis(pyridine)dimolybdenum(II)]bis(tetrafluoroborate) and derivatives, 177
Metal–metal multiple bond
Synthesis, characterization, and X-ray crystallography of a series of ditungsten complexes with bis(diphenylphosphino)-amine, 136
Micro-crystal diffraction
The preparation, molecular structure and catalytic relevance of $Ti(OSiPh_3)_4$ and $Ti(OGePh_3)_4$, 221
Molecular modeling
Molecular modeling of dimetal systems: Part 4. Dirhenium bonds, 159

Molybdenum
Preparation and structure of the 17-electron (η^5-C_5R_5)$Mo(OH)_2$(dppe) (R = Me, Et) organometallic compounds containing two *gem*-terminal hydroxide ligands, 64

Nanocomposites
Formation of a Pt_1Sn_1(niggliite)–silica xerogel nanocomposite using a PtSn (1:1) organometallic precursor, 252
Nanoparticles
Formation of a Pt_1Sn_1(niggliite)–silica xerogel nanocomposite using a PtSn (1:1) organometallic precursor, 252
Nickel
Reaction of nickelocene with 1,3-dimesitylimidazolium chloride, 3
Niggliite
Formation of a Pt_1Sn_1(niggliite)–silica xerogel nanocomposite using a PtSn (1:1) organometallic precursor, 252

Olefin polymerization
Synthesis and structural characterization of Group 14 complexes containing two {9-[2-(dimethylamino)ethyl]fluorenyl-} ligands and a unique coupling product, 70
Organometallic hormone
The first organometallic derivative of 11β-ethynylestradiol, a potential high-affinity marker for the estrogen receptor, 242
ortho-Metallation
Mercury(II) and gold(III) derivatives of 2-phenyl pyridines and 2-phenyl-4-(methylcarboxylato)quinoline, 165
Synthesis, structure and properties of cycloruthenated complexes: crystal structure of mono-chloro-(η^6-*p*-cymene)-{(phenylazophenyl}ruthenium(II), 232
Osmium
Synthesis, characterization and crystal structures of some tungsten and triosmium carbonyl complexes with monopyridyl and dipyridyl azo ligands, 36
Synthesis, structure, and reactivity of osmium π-thiophene complexes, 46
Systematic formation of mixed-metal high-nuclearity clusters: the synthesis and characterisation of $[Os_6(CO)_{17}(Au_2dppm)]$ and $[Os_6(CO)_{17}(Au_2dppm)\{Ru(\eta^5\text{-}C_5H_5)\}_2]$ (dppm = $Ph_2PCH_2PPh_2$), 204
Oxidation
Preparation and structure of the 17-electron (η^5-C_5R_5)-$Mo(OH)_2$(dppe) (R = Me, Et) organometallic compounds containing two *gem*-terminal hydroxide ligands, 64

Palladium
Photo-assisted formation of a chelating diphos ligand from PPh_3 and a cyclometallated $[P(C_6H_4)(C_6H_5)_2]^-$ ligand. Crystal structure of $Pd\{\eta^2\text{-}o\text{-}[P(C_6H_5)_2]_2(C_6H_4)\}Br_2$, 248
P–C bond breaking
Photo-assisted formation of a chelating diphos ligand from PPh_3 and a cyclometallated $[P(C_6H_4)(C_6H_5)_2]^-$ ligand. Crystal structure of $Pd\{\eta^2\text{-}o\text{-}[P(C_6H_5)_2]_2(C_6H_4)\}Br_2$, 248
Pd(II) and Pt(II) complexes
Photoluminescent macrocyclic Pd(II) and Pt(II) dimeric complexes with Ph_2P–C≡C–PPh_2 spacer, 53
Perfluorobutyl germanium
Synthesis of perfluoropropyl and perfluorobutyl germanium by direct fluorination: a potential general synthesis for perfluorinated metal alkyls, 6
Perfluoropropyl germanium
Synthesis of perfluoropropyl and perfluorobutyl germanium by direct fluorination: a potential general synthesis for perfluorinated metal alkyls, 6

2-Phenylpyridines
Mercury(II) and gold(III) derivatives of 2-phenyl pyridines and 2-phenyl-4-(methylcarboxylato)quinoline, 165
Phosphine
Synthesis, characterization, and X-ray crystallography of a series of ditungsten complexes with bis(diphenylphosphino)amine, 136
Photoluminescence
Photoluminescent macrocyclic Pd(II) and Pt(II) dimeric complexes with Ph_2P–C≡C–PPh_2 spacer, 53
Polymeric complex
Chain polymeric complexes of some first-series transition-metal ions with *N,N,N′,N′*-tetra-acetyl-1,4-diaminobutane, 16
Polyphosphines
Photoluminescent macrocyclic Pd(II) and Pt(II) dimeric complexes with Ph_2P–C≡C–PPh_2 spacer, 53
Pyridine derivatives
Synthesis and characterization of [*trans*-di(μ-acetato)(μ-bis-(diphenylphosphino)methylamine) bis (pyridine) dimolybdenum(II)]bis(tetrafluoroborate) and derivatives, 177

Raman
Raman spectroscopic investigations of dinuclear gold ylide complexes; further relationships of Au–Au bond lengths versus Au–Au stretching frequencies, 237
Rhenium
Coordinations of vinyltetrahydrothiophene to a trirhenium cluster, 102
Molecular modeling of dimetal systems: Part 4. Dirhenium bonds, 159
Synthesis and structural characterization of chiral thiacrowns: the crystal and molecular structure of (*R,R,R*)-2,6,10-trimethyl-1,5,9-trithiacyclododecane, 115
Rhodium
Structures and properties of complexes $[MCl(C_5Me_5)(N \wedge S)](PF_6)$, M = Rh, Ir, with N ^ S = 1-methyl-2-(alkylthiomethyl)-1*H*-benzimidazole ligands, 84
Studies of tetrakis(trifluoroacetate) dirhodium: Part 4. Solventless synthesis of $Rh_2(O_2CCF_3)_2(CO)_4$ combined with $Rh_2(O_2CCF_3)_4$, a compound with infinite chains of rhodium atoms, 130
Rhodium acetate
Structural and electronic properties of (2,2-*trans*)-dirhodium(II) tetrakis(*N*-phenylacetamidate), 90
Ru–ethylene
The metal–metal bond in the dibenzotetramethyltetraaza-[14]annulene–ruthenium dinuclear complex: a structural, magnetic, and theoretical analysis, 77
Ru–macrocycle
The metal–metal bond in the dibenzotetramethyltetraaza-[14]annulene–ruthenium dinuclear complex: a structural, magnetic, and theoretical analysis, 77
Ru–Ru bonds
The metal–metal bond in the dibenzotetramethyltetraaza-[14]annulene–ruthenium dinuclear complex: a structural, magnetic, and theoretical analysis, 77
Ruthenium
Preparation of ruthenium silanethiolato complexes and their reactions with sulfur dioxide; possible models for the activation of SO_2 in the homogeneously catalyzed Claus reaction, 193
Synthesis, structure, and reactivities of the Ru–Co heterobimetallic complex. Molecular structures of $Cp^*Ru(CO)_2(\mu_2\text{-}CO)Co(CO)_3$, $Cp^*Ru(\mu_2\text{-}CO)_2(\mu_2\text{-dppm})Co(CO)_2$, $Cp^*Ru(CNBu^t)(CO)(\mu_2\text{-}CO)Co(CO)_3$, and $Cp^*(CO)Ru\{\eta^2{:}\eta^4\text{-}\mu_2\text{-}C(Tol)CHC(Tol)CH\}Co(CO)_2$ ($Cp^* = \eta^5\text{-}C_5Me_5$, dppm = $Ph_2PCH_2PPh_2$, Tol = C_6H_4Me-4), 121

Systematic formation of mixed-metal high-nuclearity clusters: the synthesis and characterisation of $[Os_6(CO)_{17}(Au_2dppm)]$ and $[Os_6(CO)_{17}(Au_2dppm)\{Ru(\eta^5\text{-}C_5H_5)\}_2]$ (dppm = $Ph_2PCH_2PPh_2$), 204

Triphenylphosphine-substituted *N,N*-di-*iso*-propylcarbamate of ruthenium(II) and its reactions with carbon monoxide, 144

Silanethiolate

Preparation of ruthenium silanethiolato complexes and their reactions with sulfur dioxide; possible models for the activation of SO_2 in the homogeneously catalyzed Claus reaction, 193

Silica xerogels

Formation of a Pt_1Sn_1(niggliite)–silica xerogel nanocomposite using a PtSn (1:1) organometallic precursor, 252

Sol–gel chemistry

Formation of a Pt_1Sn_1(niggliite)–silica xerogel nanocomposite using a PtSn (1:1) organometallic precursor, 252

Solvatochromism

Synthesis, characterization and crystal structures of some tungsten and triosmium carbonyl complexes with monopyridyl and dipyridyl azo ligands, 36

Structure

Structures and properties of complexes $[MCl(C_5Me_5)(N \hat{} S)](PF_6)$, M = Rh, Ir, with N ^ S = 1-methyl-2-(alkylthiomethyl)-1*H*-benzimidazole ligands, 84

Triphenylphosphine-substituted *N,N*-di-*iso*-propylcarbamate of ruthenium(II) and its reactions with carbon monoxide, 144

Sulfhydryl complex

Preparation of ruthenium silanethiolato complexes and their reactions with sulfur dioxide; possible models for the activation of SO_2 in the homogeneously catalyzed Claus reaction, 193

Sulfur dioxide

Preparation of ruthenium silanethiolato complexes and their reactions with sulfur dioxide; possible models for the activation of SO_2 in the homogeneously catalyzed Claus reaction, 193

Supramolecular structure

Synthesis and X-ray structures of some Group 6 metal carbonyl bis(2-pyridyl)formamidine complexes, 226

Tetrahydrothiophene

Coordinations of vinyltetrahydrothiophene to a trirhenium cluster, 102

Tetramethyltetraaza[14]annulene

The metal–metal bond in the dibenzotetramethyltetraaza-[14]annulene–ruthenium dinuclear complex: a structural, magnetic, and theoretical analysis, 77

Thiacrowns

Synthesis and structural characterization of chiral thiacrowns: the crystal and molecular structure of (*R,R,R*)-2,6,10-trimethyl-1,5,9-trithiacyclododecane, 115

Thioethers

Structures and properties of complexes $[MCl(C_5Me_5)(N \hat{} S)](PF_6)$, M = Rh, Ir, with N ^ S = 1-methyl-2-(alkylthiomethyl)-1*H*-benzimidazole ligands, 84

Thiolate

Synthesis, structure, and reactivity of osmium π-thiophene complexes, 46

Thiophene

Synthesis, structure, and reactivity of osmium π-thiophene complexes, 46

Thiosulfite

Preparation of ruthenium silanethiolato complexes and their reactions with sulfur dioxide; possible models for the activation of SO_2 in the homogeneously catalyzed Claus reaction, 193

Tin

Synthesis and structural characterization of Group 14 complexes containing two {9-[2-(dimethylamino)ethyl]fluorenyl-} ligands and a unique coupling product, 70

Trifluoroacetate

Studies of tetrakis(trifluoroacetate) dirhodium: Part 4. Solventless synthesis of $Rh_2(O_2CCF_3)_2(CO)_4$ combined with $Rh_2(O_2CCF_3)_4$, a compound with infinite chains of rhodium atoms, 130

Tris(pyrazolyl)borate

The synthesis and structural characterization of phenyl tris(3-*t*-butylpyrazolyl)borato alkyl complexes of magnesium and zinc, $[PhTp^{Bu^t}]MgR$ (R = Me, Et) and $[PhTp^{Bu^t}]ZnMe$, 22

Tungsten

Synthesis, characterization and crystal structures of some tungsten and triosmium carbonyl complexes with monopyridyl and dipyridyl azo ligands, 36

Ultrafast spectroscopy

Femtosecond infrared studies of ligand rearrangement reactions: silyl hydride products from Group 6 carbonyls, 183

Vinyltetrahydrothiophene

Coordinations of vinyltetrahydrothiophene to a trirhenium cluster, 102

X-ray

Synthesis, structure, and reactivity of osmium π-thiophene complexes, 46

X-ray structure

Systematic formation of mixed-metal high-nuclearity clusters: the synthesis and characterisation of $[Os_6(CO)_{17}(Au_2dppm)]$ and $[Os_6(CO)_{17}(Au_2dppm)\{Ru(\eta^5\text{-}C_5H_5)\}_2]$ (dppm = $Ph_2PCH_2PPh_2$), 204

Ytterbium(II)

Mixed pyrazolylborate/cyclopentadienyl derivatives of divalent lanthanides: synthesis and structure of $(Tp^{tBu,Me})Yb(C_5H_4R)$ (R = H, $SiMe_3$), 95

Zinc

The synthesis and structural characterization of phenyl tris(3-*t*-butylpyrazolyl)borato alkyl complexes of magnesium and zinc, $[PhTp^{Bu^t}]MgR$ (R = Me, Et) and $[PhTp^{Bu^t}]ZnMe$, 22